

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

Claim 1 (Currently Amended): A photovoltaic solar cell ~~with~~ comprising:

an electric solid material contact between a semiconductor layer of layer thickness d_{HL} and a plurality of metal nano emitters each of a space-charge zone of extent w within the semiconductor layer and embedded in an electrically insulating oxide layer applied on the semiconductor layer, ~~with~~ wherein minority carriers ~~migrating~~ migrate to the space-charge zone over a diffusion length L_d ~~and with~~

a transparent conductive layer electrically insulated from the semiconductor layer by the oxide layer; ~~and~~ ~~as well as with~~

front and rear contacts; ~~characterized by the fact that~~

wherein the metal nano emitters (NE) form a Schottky contact and are three-dimensionally structured in an acicular or aciculary or in a rib-like manner and are separated from each other by a uniform distance $D \leq \sqrt{2}L$ and penetrate into the semiconductor layer to a depth

$$T \geq d_{HL} - \frac{L}{2} + w.$$

Claim 2 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, ~~characterized by the fact that~~ wherein the metal nano emitters (NE) in the semiconductor layer (HL) are provided with lateral branches and/or extend obliquely in the semiconductor layer (HL).

Claim 3 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, ~~characterized by the fact that~~ wherein a reflective surface is applied to the rear surface of the semiconductor layer (HL) in front of the rear contact (RK).

Claim 4 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, ~~characterized by the fact that~~ wherein an antireflective layer is applied to the transparent conductive layer (TCO).

Claims 5-10 (Canceled)